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Title: UNATTENDED MULTIPLICITY SHIFT REGISTER (UMSR)

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Tech Snapshot

Nuclear

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UNATTENDED MULTIPLICITY SHIFT REGISTER (UMSR)

Next Generation High Speed Neutron Coincidence DAQ

SUMMARY

The Unattended Multiplicity Shift Register (UMSR) is the next generation high speed attended and unattended neutron coincidence analysis data acquisition instrument. The UMSR is a specialized pulse counter used primarily to count neutron events originating in neutron detection instruments.

MARKET

While the counter can be used to count any TTL input pulses, its unique ability to record time correlated events and the multiplicity distributions of these events makes it an ideal instrument for counting neutron events in the nuclear fields of material safeguards, waste assay and process monitoring and control.

BENEFITS

The UMSR is a simple, reliable, and lightweight solution which leverages a modern design and COTS components.

- Simple and reliable
- Inexpensive
- Ethernet interface
- Small and light weight
- Modern design with readily available parts
- Data storage on USB drive
- Automatic data download

CONTACT

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WHY WE ARE BUILDING UNATTENDED MULTIPLICITY SHIFT REGISTER (UMSR)

The UMSR provides a modern solution for today's neutron coincidence acquisition and analysis needs.

WHAT'S BEHIND OUR TECHNOLOGY

The UMSR combines the Los Alamos National Laboratory (LANL) simple and robust shift register design with a Commercial-Off-The-Shelf (COTS) processor and Ethernet communications. The UMSR provides 0V to 2kV programmable High Voltage (HV) bias and both a 12V and a 5V detector power supply output. Serial over USB communications allows the use of existing versions of INCC or MIC software. The Ethernet port is compatible with the new IAEA RAINSTORM communication protocol and uses the Universal Instrument Token (UIT) for data security. A simple web-browser interface can be used to configure and run the instrument. The UMSR automatically stores data on the internal uSD card and performs an automatic data dump upon insertion of a USB flash drive.

OUR COMPETITIVE ADVANTAGES

Please see the attached data sheet and technical specifications for additional details.

OUR TECHNOLOGY STATUS

This technology is available for nonexclusive licensing.

PUBLICATIONS AND IP

To review a full list of technical specifications click here